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Knowledge Transfer from Interdisciplinary Research on Circular Economy to Academic Disciplines - a bibliometric study

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Circular Economy

– an unclear concept

- Circular Economy (CE) aims to minimize waste and maximize resource efficiency. (Blomsma & Brennan, 2017)
- Despite its growing popularity, CE lacks a clear, unified definition across disciplines.
- Disciplinary Differences: CE is adopted differently in various academic fields, leading to fragmented interpretations.
 - Example: Engineering focuses on technical solutions, while Economics emphasizes market structures and Management explore circular business models.

Knowledge transfer between academic disciplines

- Interdisciplinary Research (IR) plays a key role in the development of CE concepts.
- Knowledge Transfer: Movement of ideas, theories, and methodologies from IR on CE to disciplinary fields.

Objective:

Compare interdisciplinary and disciplinary research on Circular Economy.



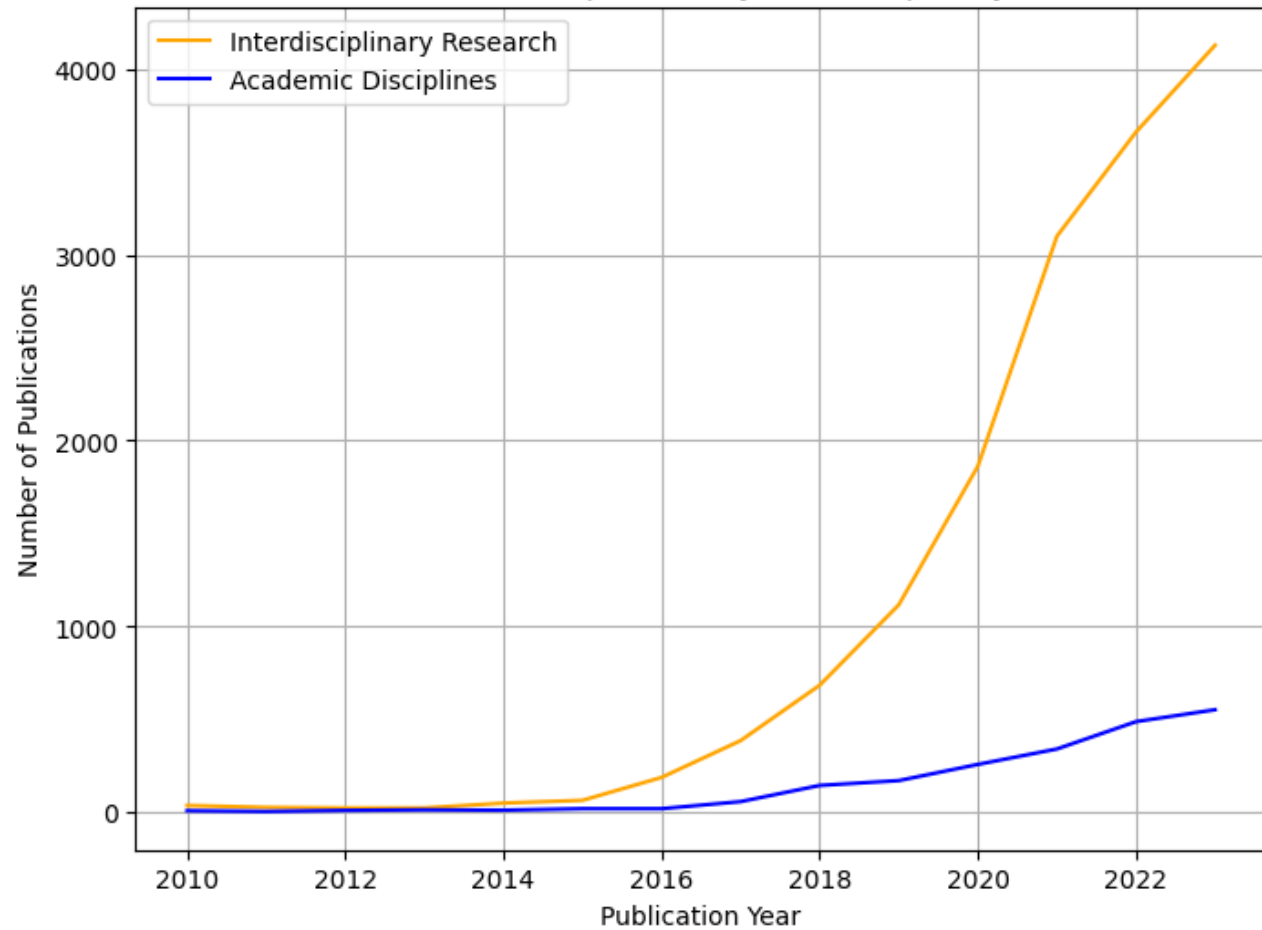
Methods

- Data Collection:
 - Scientific documents that contain “Circular Economy” on title or abstract retrieved from OpenAlex (38k documents, 25k peer-reviewed papers).
 - Journals categorized as disciplinary or interdisciplinary using Journal Citation Reports (JCR – 5 research areas, 255 categories).
- Criteria for Classification:
 - Journals categorized in only one category: disciplinary.
 - Journals categorized in multiple categories: interdisciplinary.
- Analysis:
 - Bibliometric study to track the evolution of CE publications.

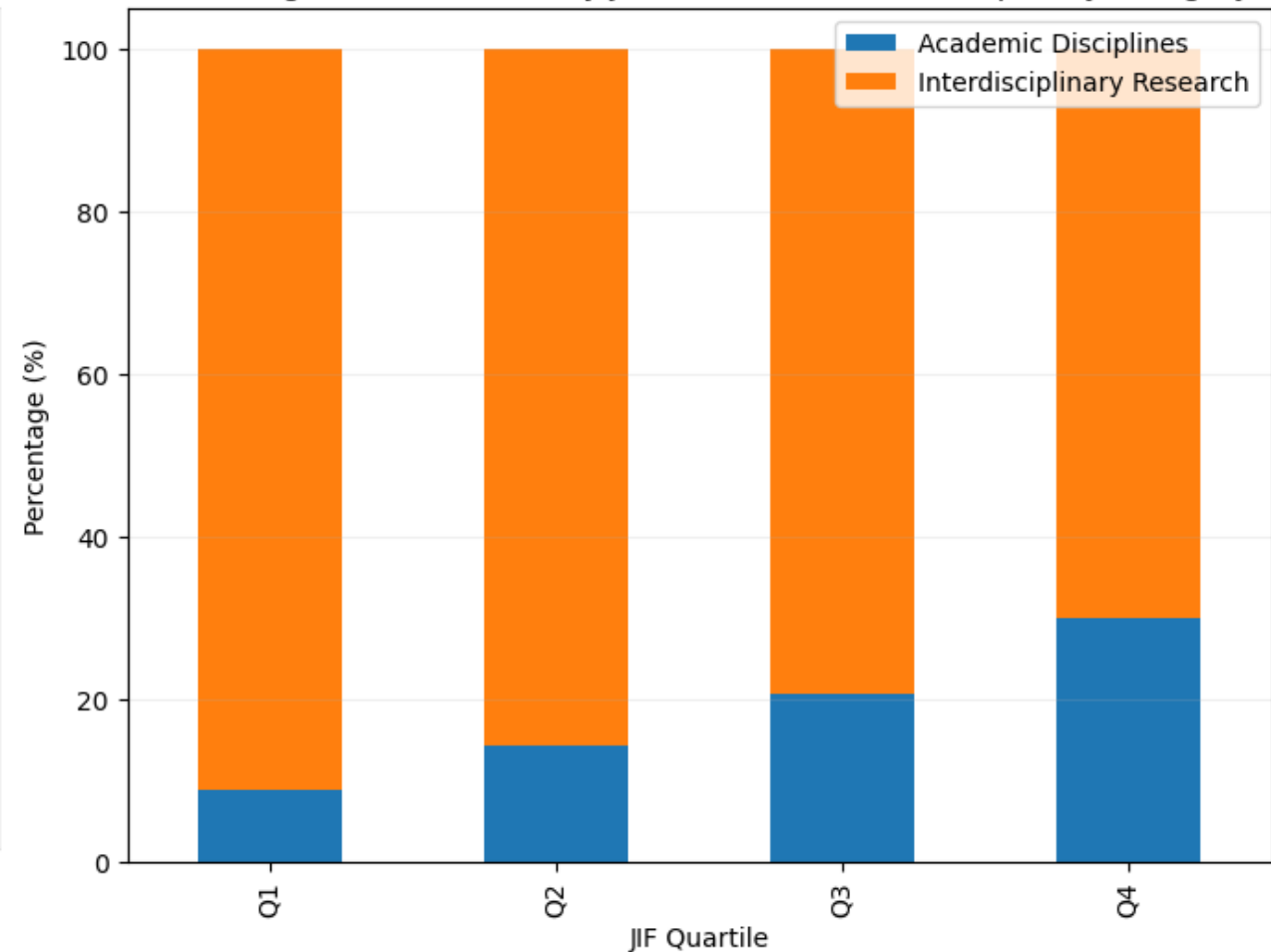


Results

Publications per Year by Interdisciplinary



Percentage of Publications by JIF Quartile and Interdisciplinary Category



Results

- Preliminary Findings:
 - Around 87% of CE research is published in interdisciplinary journals.
 - Journals without a low Journal Impact Factor (JIF) publish a significant amount of disciplinary CE research, suggesting lower visibility.
- Next steps?
 - Citations to explore knowledge transfer?
 - Difference in subtopics when published as IR or AD?



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